Docket No. 24793-29

PATENT

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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Applicant:

Theo T.M. Bogaert et al

Paper No.:

Serial No.:

09/777,510

Group Art Unit:

3764

Filing Date:

February 6, 2001

Examiner: D. D. DeMille

For:

Intraocular Lenses

TRANSMITTAL OF REPLY BRIEF

Mail Stop Appeal Brief - Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Submitted herewith in triplicate is a Reply Brief in response to the Examiner's Answer mailed March 19, 2004.

Please charge any fees required in connection with the present communication to Deposit Account No. 04-1133.

Respectfully submitted,

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TECHNOLOGY CENTER R3700

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REPLY BRIEF

Mail Stop Appeal Brief - Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

The present Reply Brief is submitted in response to the Examiner's Answer dated March 19, 2004.

I. TEACH A LENS WITH THE PRESENTLY CLAIMED CONCAVE POSTERIOR SURFACE

The Examiner's Answer provides, for the first time, detailed comments concerning the Examiner's interpretation of the Feingold U.S. Patent No. 6,106,553. While the Examiner had previously referred to only Fig. 17, the Examiner's Answer now relies on Figs. 1, 4, 8, 11, 16 and 23 to support the Examiner's assertion that Feingold shows a concave posterior surface free from discontinuities. Unlike the rejections set forth in the Official Actions issued in this application, the Examiner no longer refers to Fig. 17 of Feingold as supporting the rejection.

However, the Examiner's interpretation of Feingold still fails to render the intraocular correction lens defined by claims 1-19, 25, 29-34 and 48-50 obvious, even when Feingold is combined with the Wanders U.S. Patent No. 6,092,899.

As discussed in detail in Appellants' Appeal Brief, the intraocular correction lens defined by claim 1 comprises a centrally located optical part capable of providing an optical correction and a peripherally located supporting element capable of maintaining the optical part in the central location. Importantly, the optical part and the support element together have a concave posterior surface which is part of a non-spherical surface that is rotation symmetric around the optical axis of the optical part, wherein the intersection between the non-spherical surface and any plane containing the optical axis represents a flawless curve free from discontinuities and points of inflection.

Figs. 1, 4, 8, 11, 16 and 23 now relied upon by the Examiner fail to disclose a lens as presently claimed. First, as noted by the Examiner, Feingold does not specifically recite or disclose that the posterior surface of any of the lenses disclosed therein should be free from discontinuities or points of inflection. The Examiner asserts that Figs. 1 and 4 disclose such lenses. However, one of ordinary skill in the art will recognize that Feingold discloses that the lenses of Figs. 1 and 4 have a single inner curvature SRi. Thus, the lenses of Figs. 1 and 4 have a spherical posterior surface. On the other hand, the intraocular correction lens of the present claims has a non-spherical concave posterior surface.

With respect to Figs. 8 and 11, the Examiner asserts that Feingold similarly discloses lenses with an inner curvature SRi and that SRo in the drawings should be pointing to the outer surface. Assuming that the Examiner's assertion is correct, Figs. 8 and 11 similarly disclose lenses having spherical posterior surfaces of a single curvature SRi. On the other hand, in the event that Figs. 8 and 11 are correct, and SRo refers to a second curvature of the posterior surface, Feingold provides no teaching or suggestion relating to the transition

between the portions of different curvature, other than that shown in detail in Fig. 17 previously relied upon by the Examiner. As shown in Fig. 17, such a lens includes a point of inflection on the posterior surface in the vicinity of R8.

The Examiner has also referred to Figs. 16 and 23 of Feingold. Fig. 16 is a more generalized view of the detail shown in Fig. 17 which, as noted above, appears to include a point of inflection on the posterior surface. On the other hand, Fig. 23, like Figs. 1 and 4, appears to have a spherical posterior surface. Thus, none of the Feingold lenses now asserted by the Examiner teach or suggest an intraocular correction lens as presently claimed having a concave posterior surface which is part of a non-spherical surface that is rotation symmetric around the optical axis of the optical part, with the intersection between the non-spherical surface and any plane containing the optical axis representing a flawless curve free from discontinuities and points of inflection.

II. THE DEFICIENCIES OF FEINGOLD ARE NOT RESOLVED BY WANDERS

The Examiner's Answer acknowledges that Wanders does not disclose an intraocular lens but asserts that "in the art of providing a lens with a continuous surface free of discontinuities and points of inflection without destroying the effectiveness of the lens, Wanders does teach providing a surface free of discontinuity so as to eliminate any disruption of the natural progression of light through the lens" (page 5).

The Examiner mischaracterizes both the state of the art and the teachings of Wanders. First, there is no established "art" of providing a lens with a continuous surface free of discontinuities and points of inflection. In fact, none of the cited prior art teaches, suggests or recognizes the importance of a concave, non-spherical posterior surface wherein the intersection between the surface and any plane containing the optical axis represents a flawless curve free from discontinuities and points of inflection. Moreover, Wanders does

not teach providing a surface free of discontinuities so as to eliminate any disruption of the natural progression of light through the lens. Rather, Wanders discloses providing an extremely gradual transition between reading and distance portions on a multi-focal lens to avoid irritation, image discontinuity and reflection (column 2, lines 24-27). Specifically, in Fig. 4, Wanders discloses that the transition between the distance part with radius R_v and the reading part with radius R_l is particularly gradual. However, other portions of Wanders' lens include significant discontinuities and points of inflection. See, for example, the angular transition between the lateral recess 9 and the transition part 10 in Fig. 4. Thus, Wanders does not disclose a lens surface which intersects with any plane containing the optical axis to provide a flawless curve free from discontinuities and points of inflection as presently claimed.

As Appellants have previously noted, Wanders is directed to a multi-focal contact lens while Feingold is directed to an intraocular lens. The Examiner provides no basis for applying the contact lens teaching of Wanders to the intraocular lens of Feingold. Moreover, even if one of ordinary skill in the art were to be motivated to make such a combination, although such a combination is not motivated by the references, the teachings of Wanders upon which the Examiner relies relate to the optical correction surface which, in the lens of Feingold, is the anterior surface, not the posterior surface. Thus, one of ordinary skill in the art would have no motivation, absent a hindsight view of the present specification and claims, to modify the posterior surface of the Feingold lens based on the teachings relating to the optical correction surface of Wanders.

III. THE EXAMINER HAS NOT ESTABLISHED OBVIOUSNESS OF THE LENSES DEFINED BY THE DEPENDENT CLAIMS

Appellants' Appeal Brief provides specific reasons as to the independent patentability of claims 2-19, 25 and 48-50 from claim 1, and regarding the independent patentability of

claims 27 and 28 from claim 26. In response, the Examiner refers to Figs. 26 and 27 of Feingold (page 6). However, these Figures disclose schematic lenses and provide no detailed teachings regarding the specific limitations recited in the present dependent claims. With respect to claims 9-19, the Examiner merely asserts that "the specific dimensions of the lens are an obvious consideration dependent on specific practical intended use well within the realm of the artisan of ordinary skill" (page 6). Not only is the Examiner's assertion unsupported by the prior art of record, claims 9-19 contain a number of limitations in addition to absolute dimensions. These limitations are ignored by the Examiner and are not found in the cited prior art.

Finally, the Examiner asserts that the recitation in claim 7 of the lens having a point of inflection within the supporting element appears to be contradictory to claim 1. However, the Examiner's attention is directed to Fig. 1B which discloses a lens according to the present invention having a point of inflection on the anterior surface, while having a concave non-spherical posterior surface wherein the intersection between the non-spherical surface and any plane containing the optical axis represents a flawless curve free from discontinuities and points of inflection. Thus, it is apparent that the point of inflection referred to in claim 7 is on the anterior surface and claim 7 does not contradict claim 1.

IV. CONCLUSION

For the reasons set forth in detail above and in view of the arguments set forth in the Appeal Brief filed by certificate of mailing on January 6, 2004, the intraocular correction lenses defined by claims 1-19, 25-34, 49 and 50, and the kit of intraocular lenses defined by claim 48 are nonobvious over and patentably distinguishable from Feingold in view of Wanders, even in further combination with Choyce. Accordingly, the rejections of the claims

under 35 U.S.C. §103 should be reversed. Favorable action by the Board is respectfully requested.

Respectfully submitted,

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